

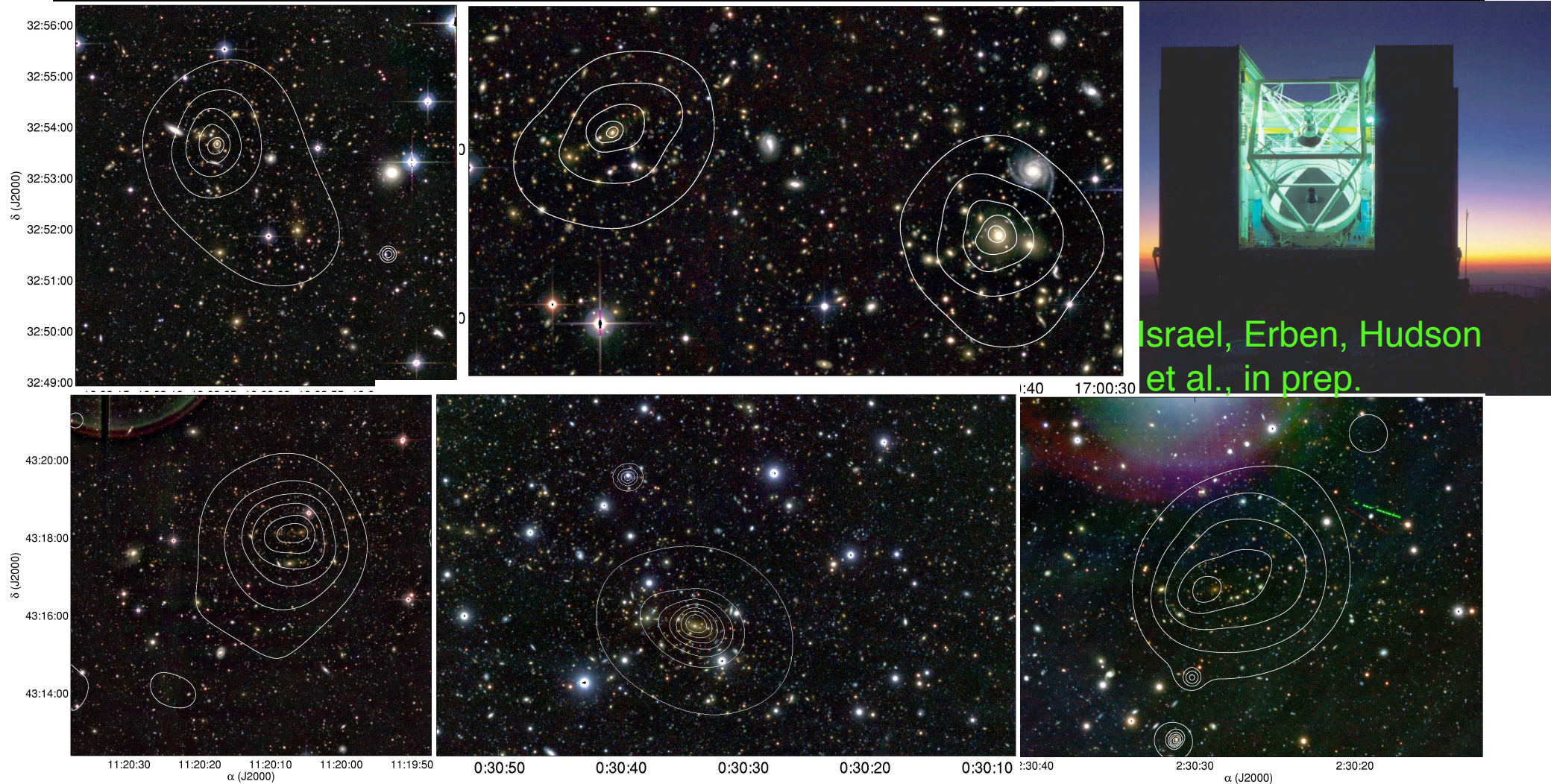
Chandra, XMM-Newton, and Suzaku Observations of Local Galaxy Groups and Clusters

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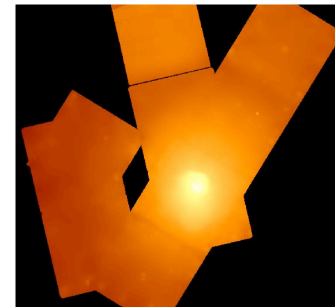
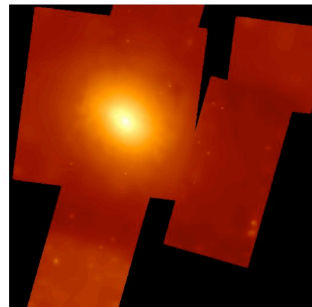
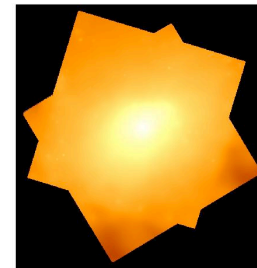
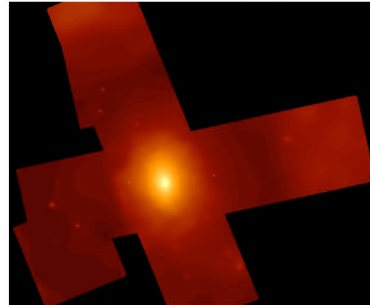
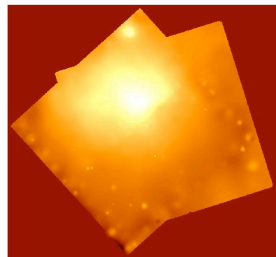
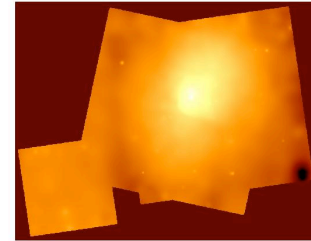
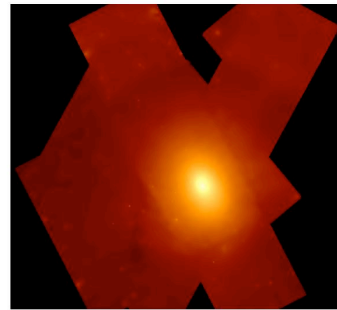
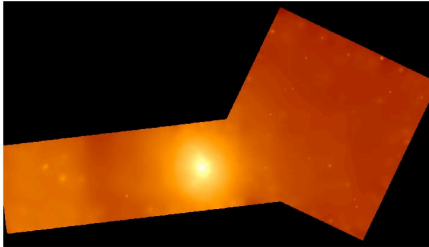
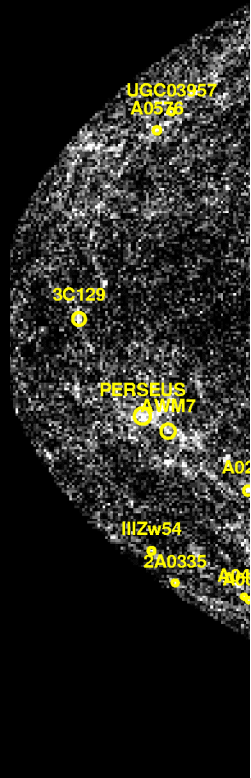
Weak Lensing Follow-Up of the 400d Clusters



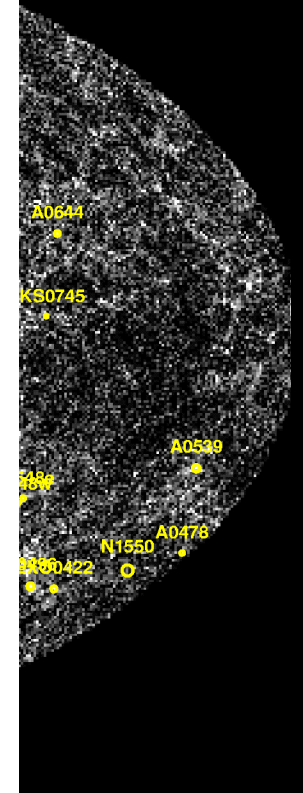
HIFLUGCS

- 64 X-ray brightest clusters in sky.
- Completely covered with *both* Chandra and XMM-Newton.
- 700ks/34 clusters own data plus >7Ms from archive.

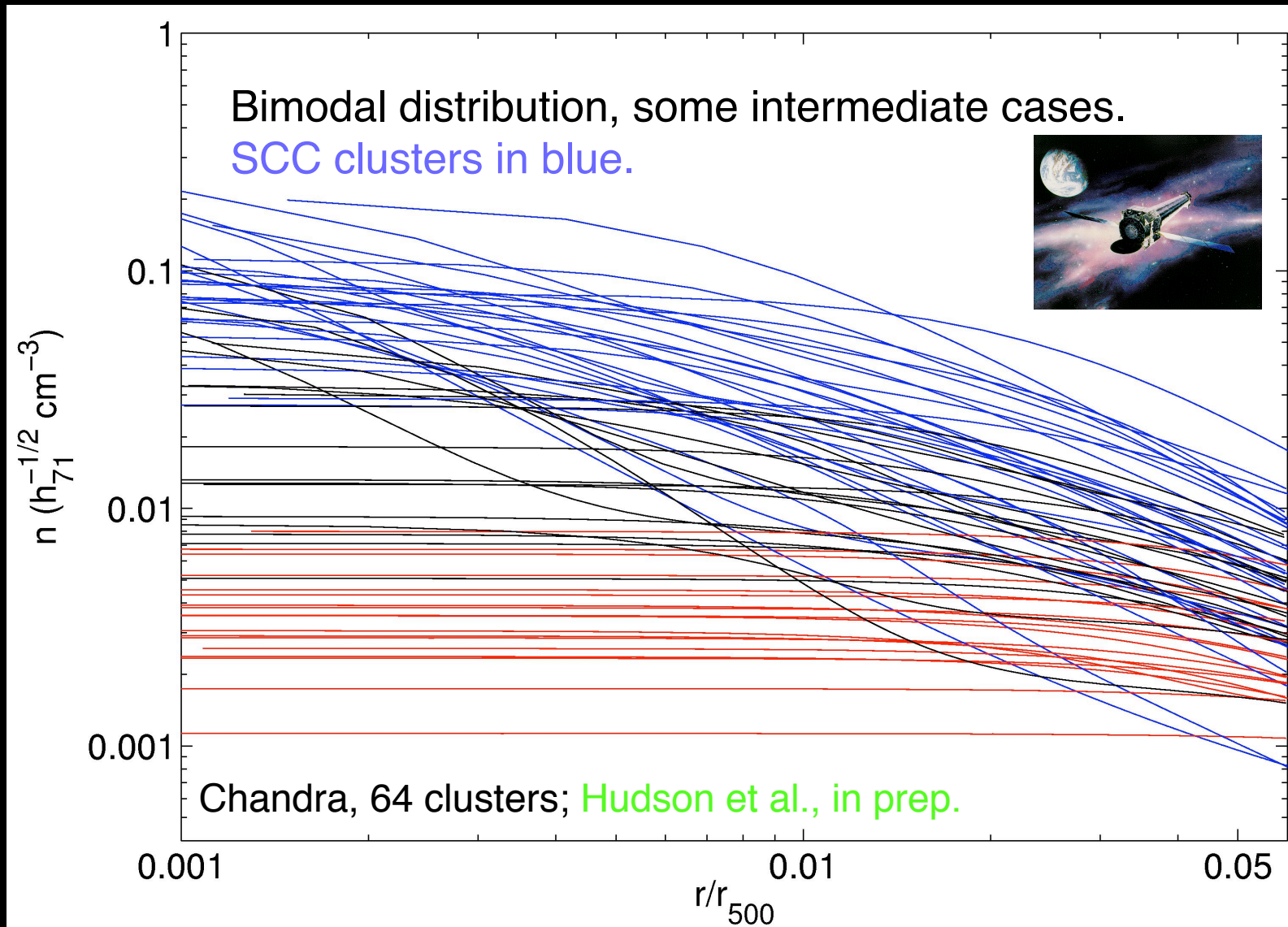
10² HIFLUGCS



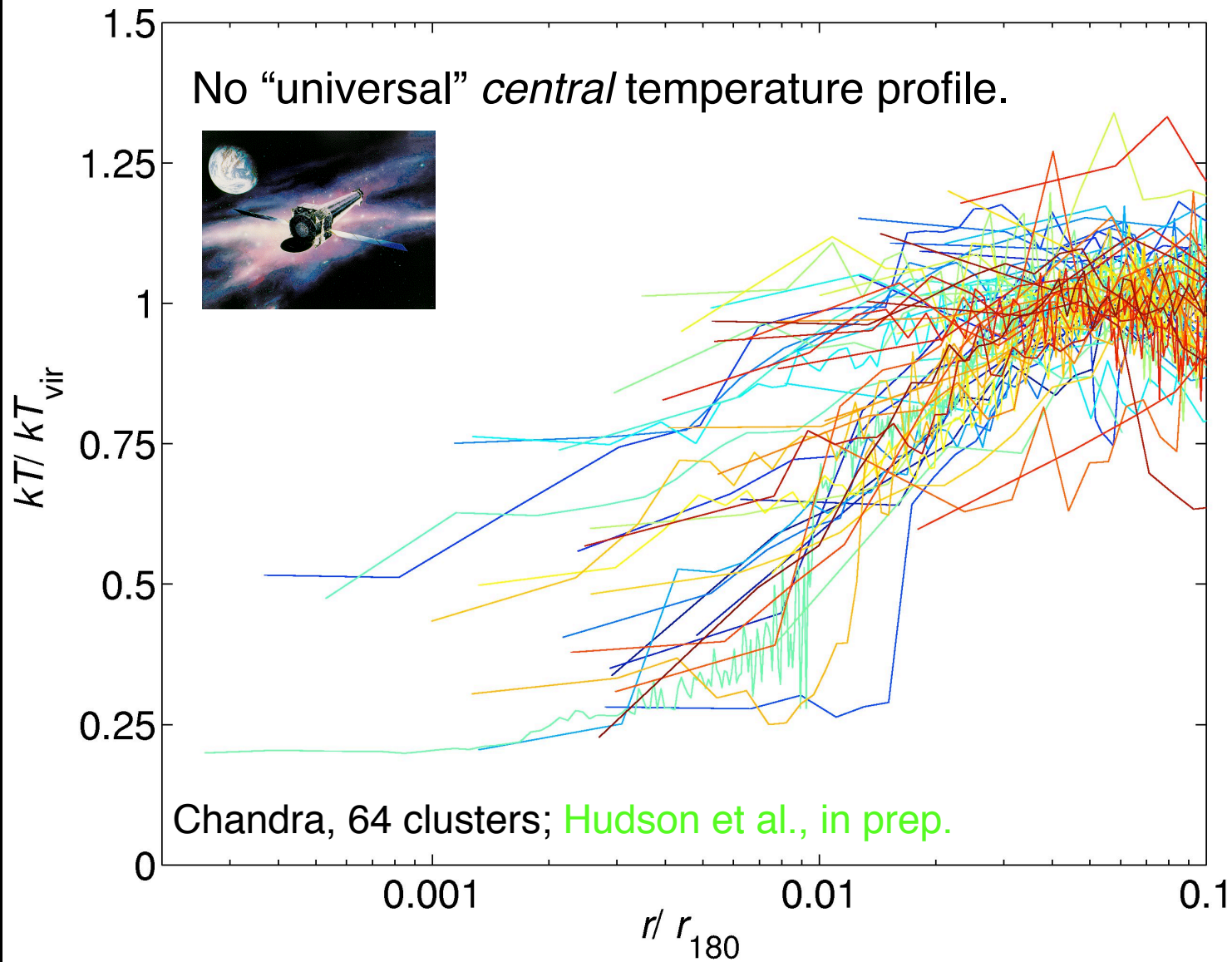
2MASS Galaxies

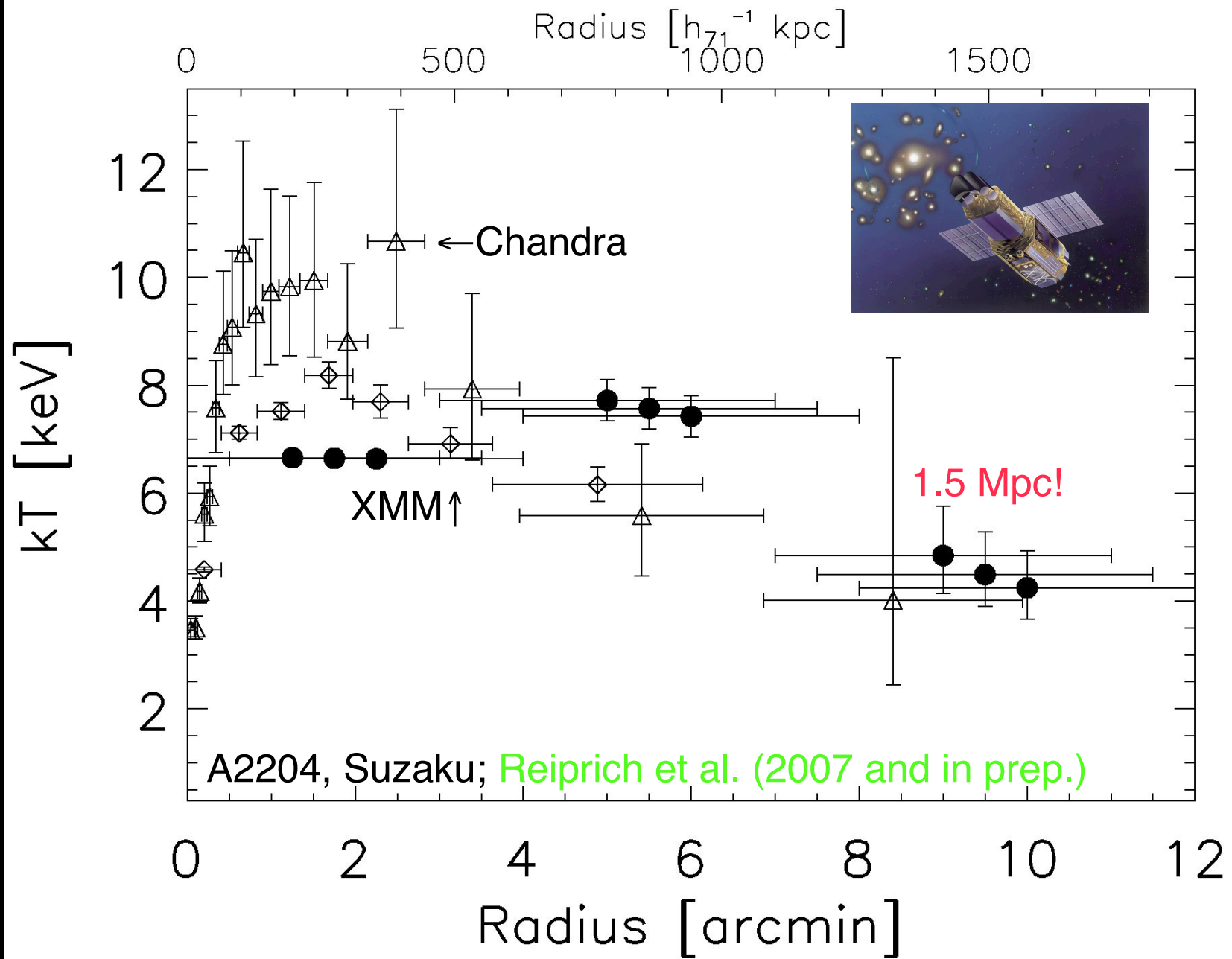


Gas Density Profiles



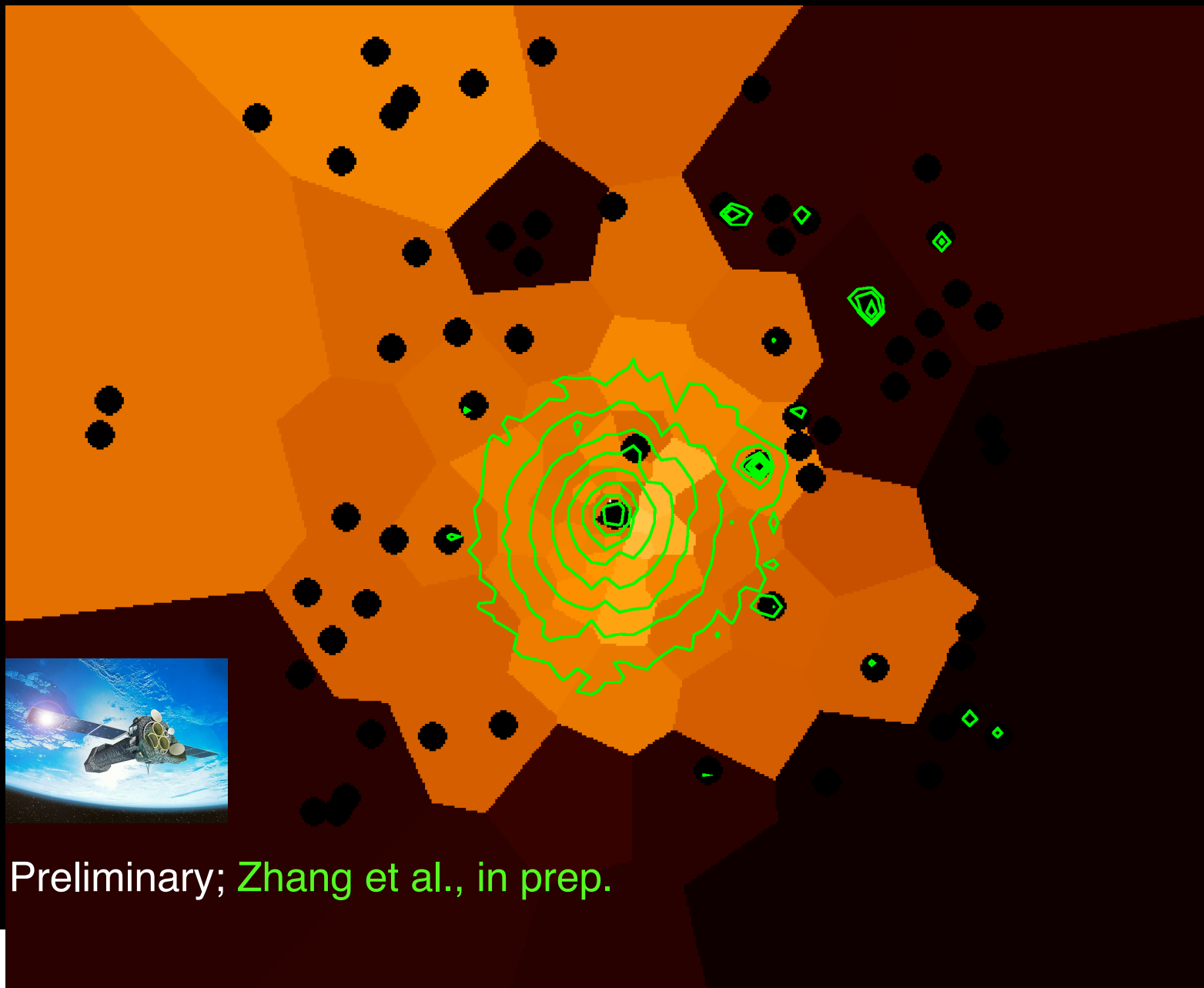
Gas Temperature Profiles





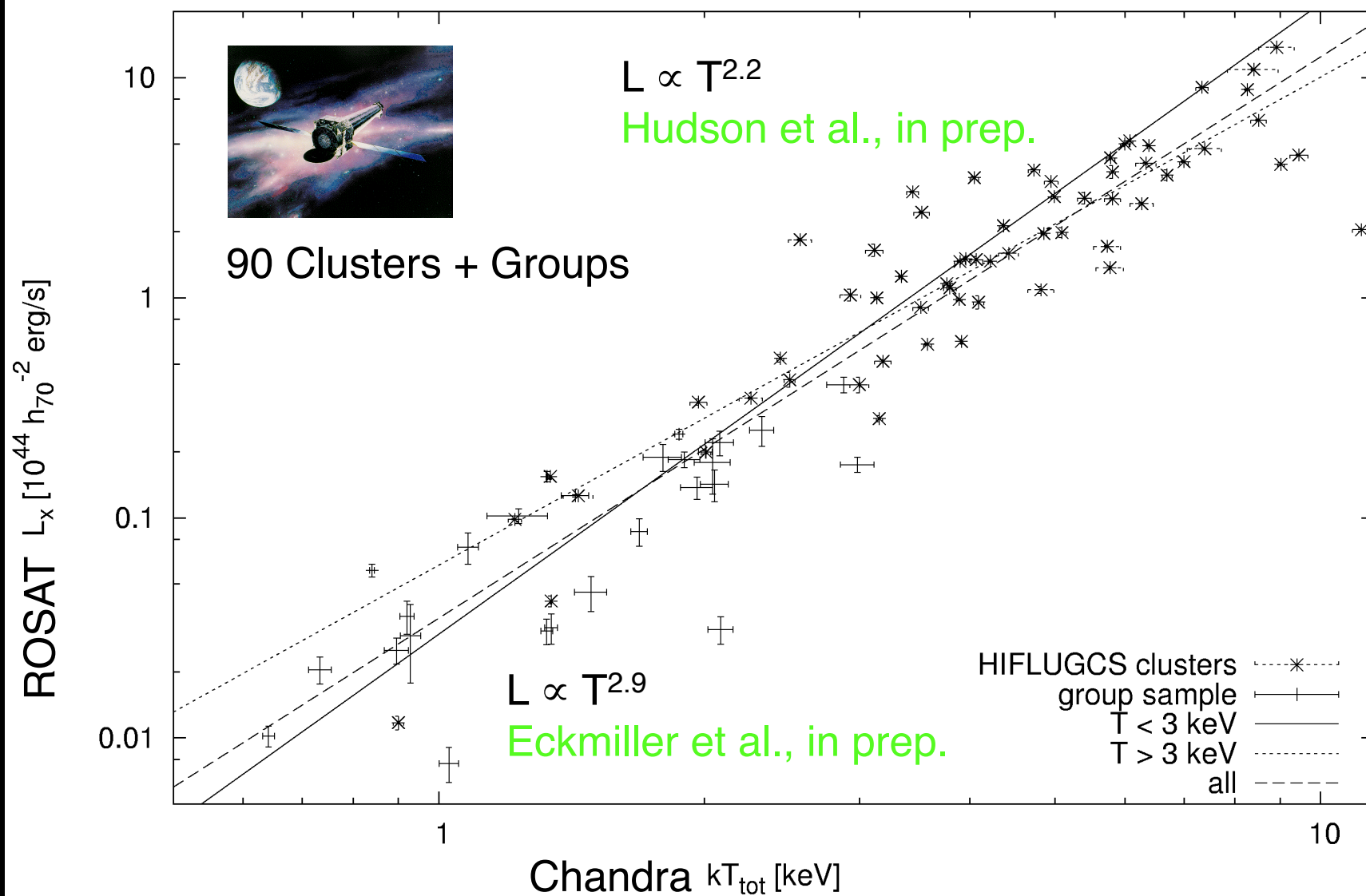
- ~8 Ms Chandra, XMM-Newton, Suzaku.
- Density profiles.
- Temperature profiles.
- Masses.
- *Complete* sample of 64 clusters.
- Most precise cluster mass function.
- Ω_m , σ_8 .

EXO0422 XMM-Newton T-Map

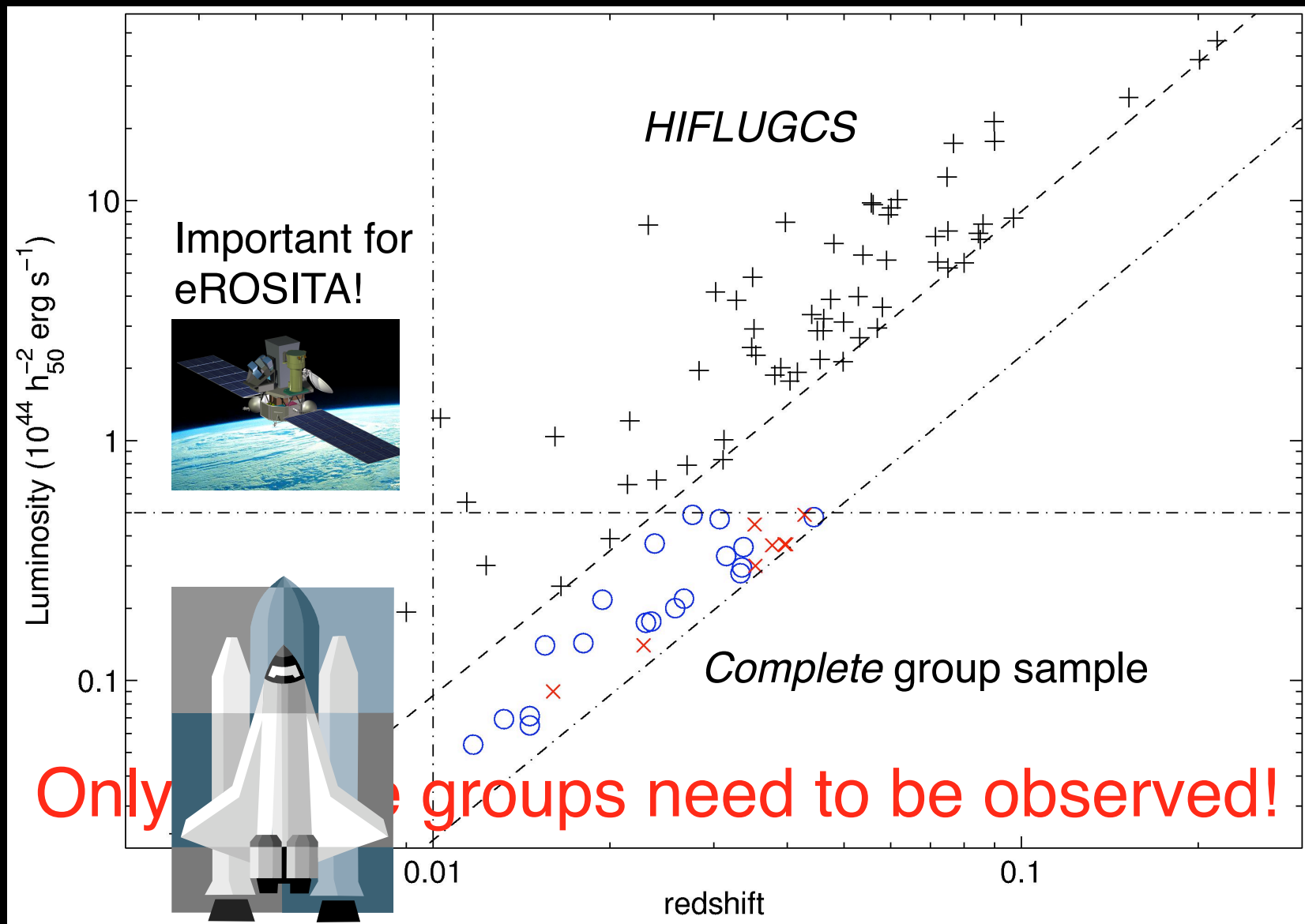


Preliminary; Zhang et al., in prep.

L-T Relation

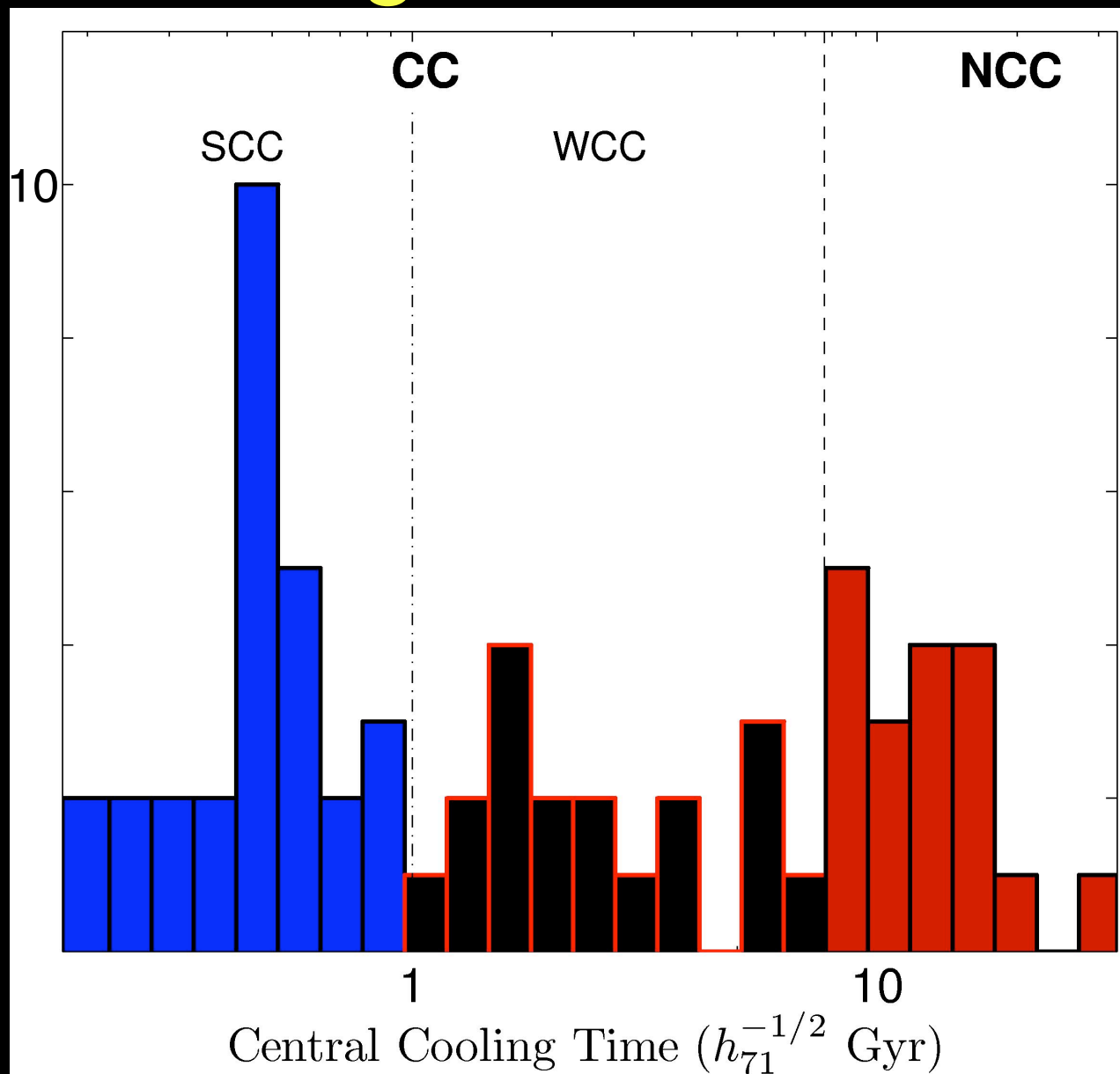


A New *Complete* Group Sample



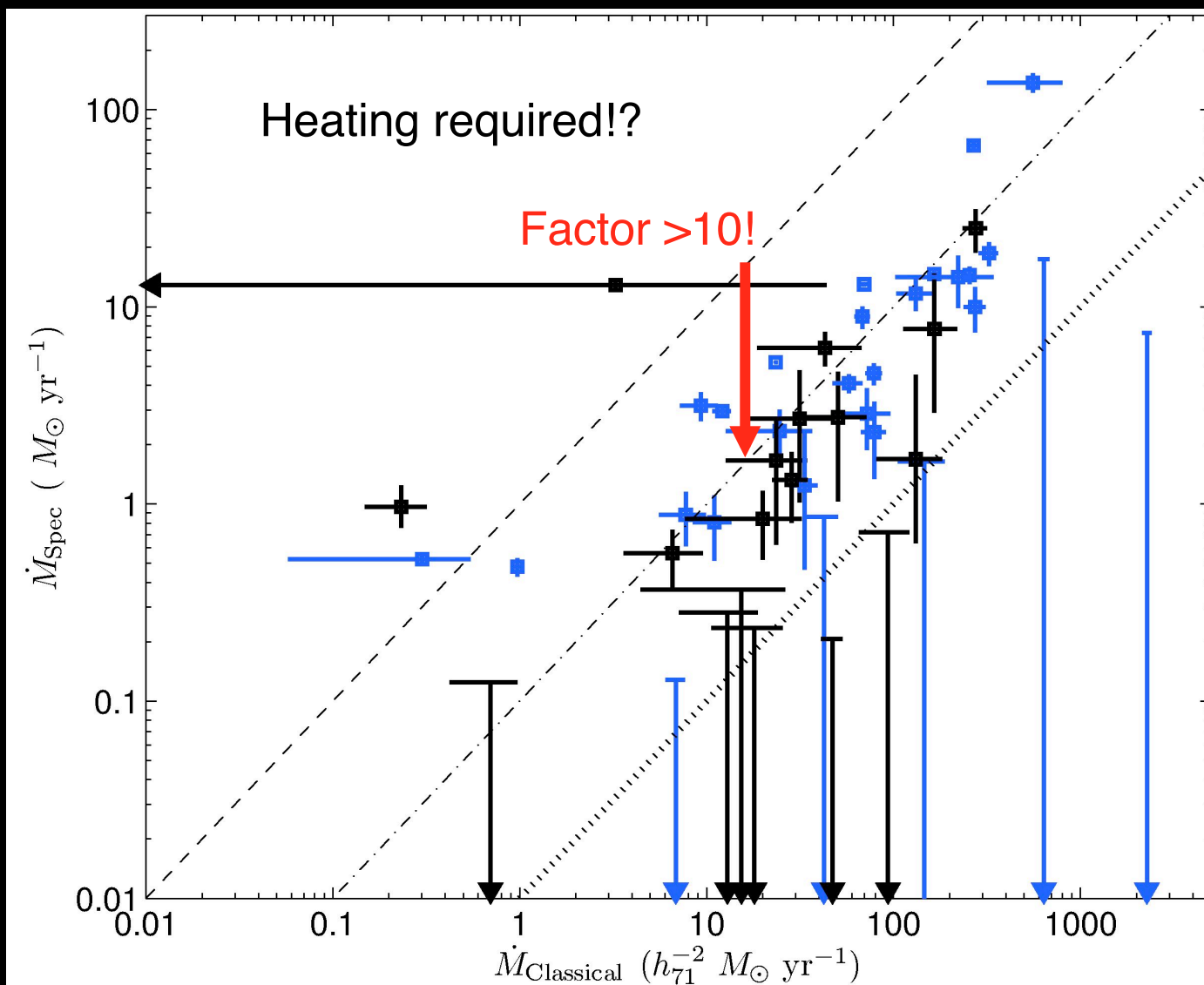
Cooling Core Clusters

Hudson et al., in prep.



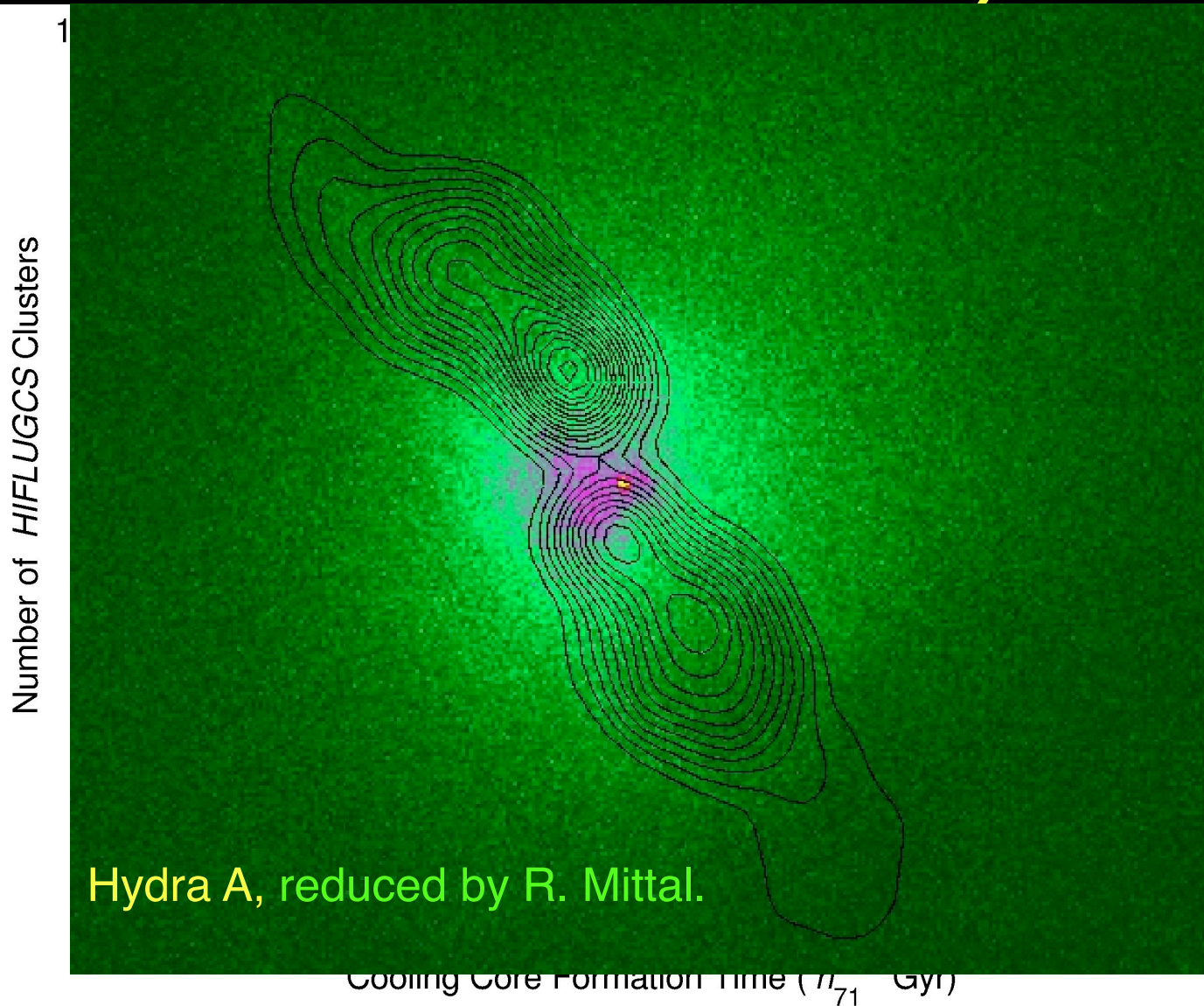
The Cooling Flow Problem

Hudson et al., in prep.

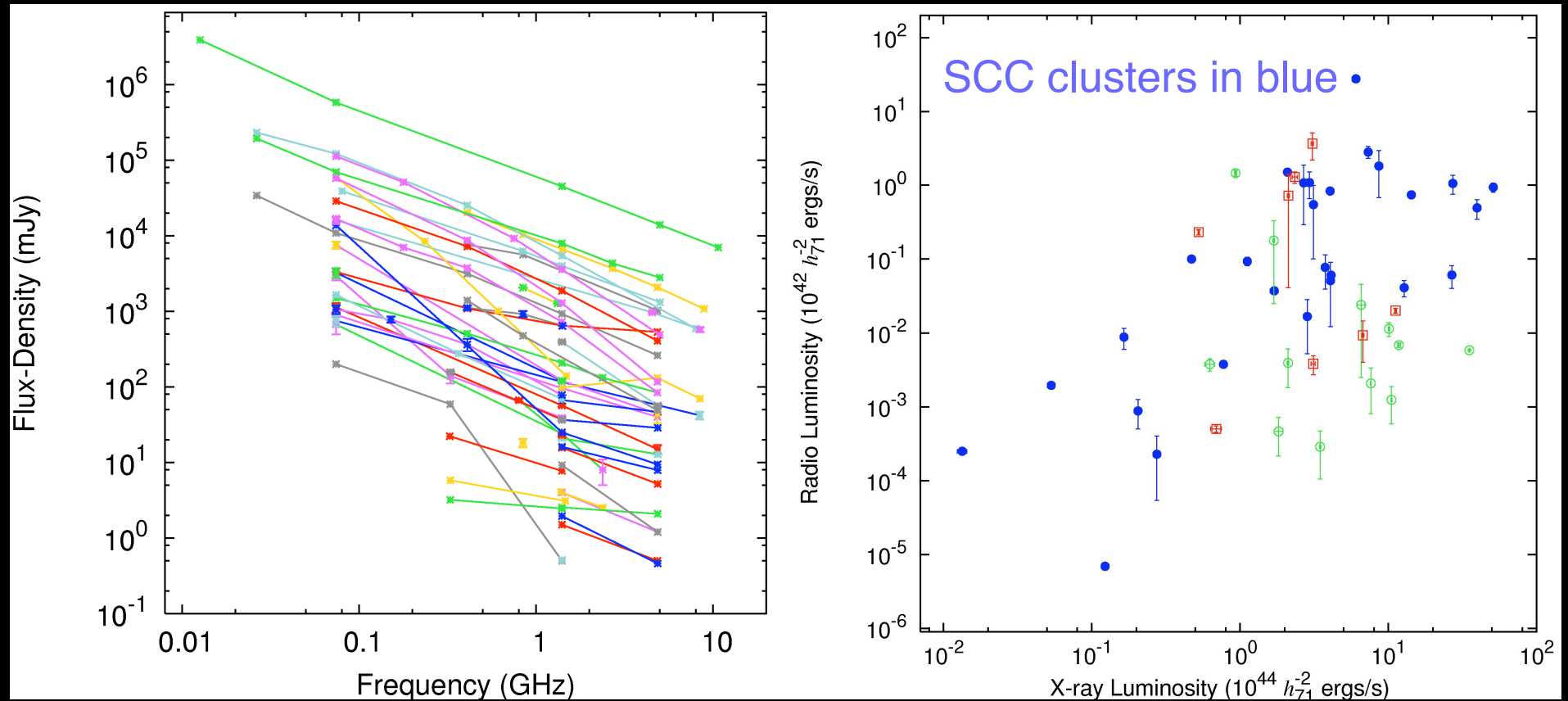


No Problem, *if* CC Started to Form *Recently*

Hudson et al., in prep.

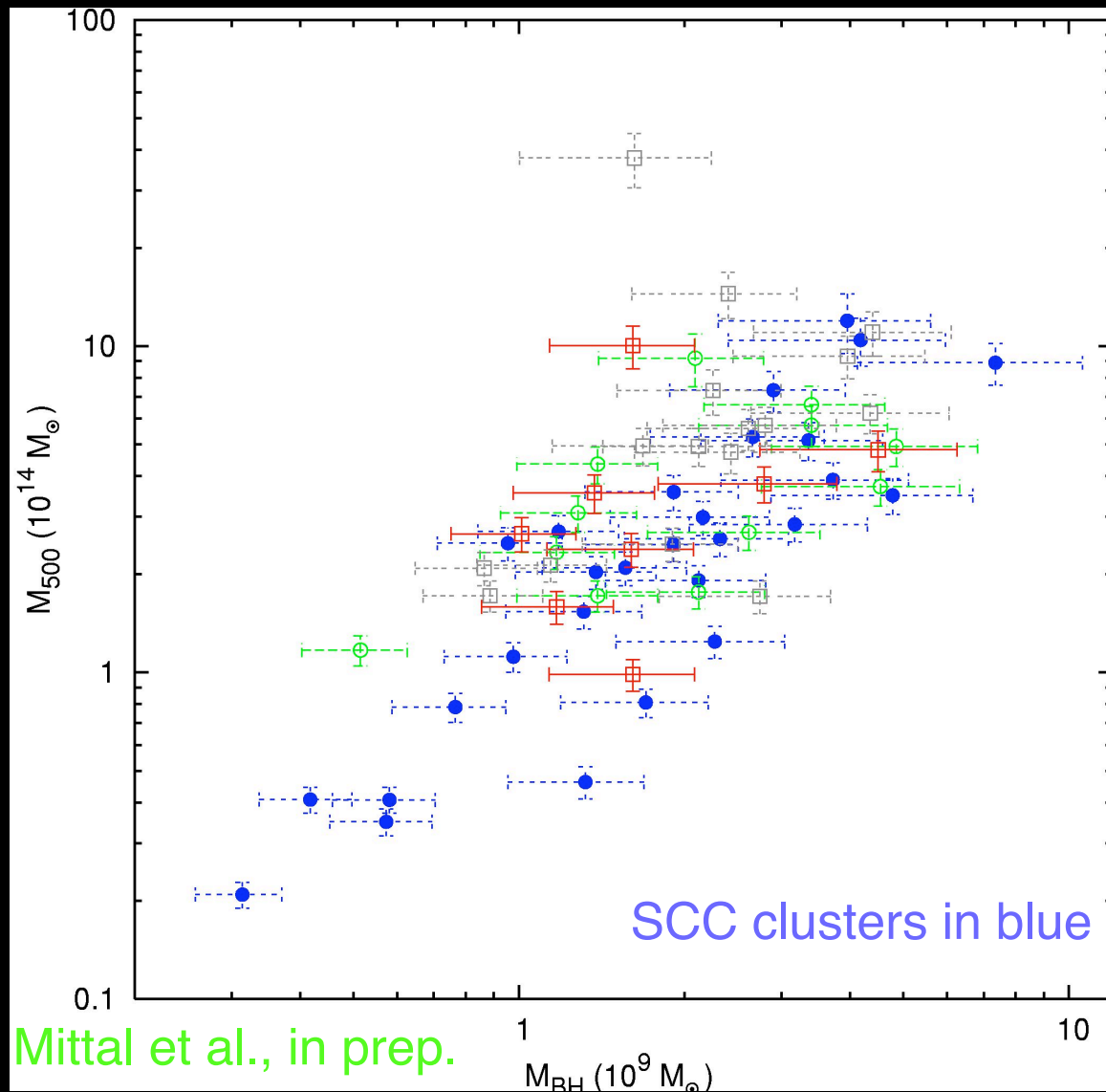


Supermassive Black Holes, AGN–Cooling Core Connection



Mittal et al., in prep.

Or Cluster Mass–Black Hole Mass Connection?



A New *Complete* Group Sample

